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Rajan Kumar
18 Buford Road
Robbinsville, NJ 08691

EXAMINER	
LAM, ANN Y	

ART UNIT	PAPER NUMBER
1641	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/076,741	KUMAR, RAJAN	
	Examiner	Art Unit	
	Ann Y. Lam	1641	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 August 2005 and 05 July 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3 and 11-23* is/are pending in the application.

4a) Of the above claim(s) *4-9* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3 and 11-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Status of claims

Claims 4-9 have been withdrawn.

Claim 10 has been canceled.

New claims 11-23 have been added in the last amendment.

Claims 1-3 and 11-23 are currently pending.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 22 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 22 recites a method to perform a chemical reaction between two or more chemical species and at least one catalyst, comprising introduction of a solution containing a catalyst. However, Applicant's original specification do not disclose a catalyst anywhere.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-3 and 11-23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1, lines 3-5, and claim 22, lines 3-5, recite a substrate and a microfluidic device. However, claim 1 is directed to a method claim and thus it is not clear what steps are recited in lines 3-5. (Applicant should amend the claim to insert the word –providing--.)

Claim 2, line 4 recites "at least one substrate" and line 6 recites "at least two microflidic device". However claim 2 depends from claim 1 and it is not clear whether the method of claim 2 further comprises providing "at least one substrate" and "at least two microfluidic device" in addition to the substrate and microfluidic device in claim 1, or whether the method of claim 2 comprises providing at least one substrate and at least two microfluidic device in the aggregate. For examination purposes, the Office will interpret claim 2 to recite the latter.

For similar reasons, with respect to claim 2, it is not clear whether the steps of insertion, introduction, removal and detecting are the same steps as recited in claim 1, or whether they are additional steps. For examination purposes, the Office will interpret the step of insertion into a first microfluidic device and the steps of introduction and removal in claim 2 to be referring to the same steps as recited in claim 1. The Office will

interpret the step of insertion into a second microfluidic device to be a further step recited in claim 2. (To avoid vagueness, Applicant may consider changing the claims into independent form).

For similar reasons, with respect to claims 3 and 13, it is not clear whether the steps of insertion, introduction and removal are the same as those in claim 1, from which they depend, or whether they are in addition to the steps in claim 1. For examination purposes, the Office will interpret steps that regard the first microfluidic device to be the same steps as those in claim 1, the steps that regard a second or third microfluidic device to be additional steps to the steps recited in claim 1.

As to claim 3, it is not clear whether the "at least two substrates" in line 3 are in addition to the substrate in claim 1, from which claim 3 depends, or whether claim 3 is reciting a total of at least two substrates.

Claim 3, line 24, recites 'the molecules of the detection reagent". The claim lacks antecedent basis for this limitation.

As to claim 19, line 1, recites "the part of the substrate bearing the array of molecules. The claim lacks antecedent basis for "the part".

Claim 20, line 3, recites "second chemical species". It is not clear whether or not this limitation is referring to the second chemical species in claim 1. (Applicant should insert the word –the—before "second chemical species" in claim 20. For purposes of examination, the Office will interpret claim 20 to refer to the same second chemical species as recited in claim 1.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-3 and 11-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over La Motte, 5,882,595, in view of Parce et al., 4,911,794, and further in view of Rampal et al., 6,861,214.

La Motte discloses the invention substantially as claimed. More specifically, as to claim 1, La Motte teaches a method for analysis of a sample containing molecules of a first chemical species comprising:

providing a substrate (i.e., the teeth 11 of comb 10, see col. 1, line 64);

providing a microfluidic device (i.e., well plate 20, col. 1, line 60, and col. 5, lines 3-5, and see fig. 4) containing at least one channel (i.e., well 21) with at least one port (the Office notes that the La Motte well plate is considered to be the claimed microfluidic device and the La Motte wells are considered to be the claimed channel, based on Applicant's definition and disclosure in the specification);

a step of insertion of the substrate into the channel in the microfluidic device (col. 3, lines 60-62);

a step of introduction of the sample into the channel (col. 3, lines 37-38 and col. 5, lines 27-29; the Office notes that Applicant has not indicated the sequence of the step

of introduction of the sample with respect to the other claimed steps), wherein the molecules of the first chemical species come in contact with the molecules of the second chemical species (col. 3, lines 60-63);

a step of detecting the presence of any molecules of the first chemical species bound to the immobilized molecules of the second chemical species (col. 1, lines 31-34, and col. 2, lines 23-24).

However, La Motte does not disclose the step of removing the sample from the channel. While La Motte does disclose an inlet and an outlet for introducing and removing, respectively, a wash fluid from the wells of the wash station (col. 2, lines 36-44), La Motte does not disclose that the wells of the other stations, such as the capture station (col. 2, line 22) also have an inlet and outlet for introduction of a sample and removal of the sample.

However, Parce et al. teach a reaction chamber (116) having an inlet (110) and outlet (112) for introduction and removal of a sample (col. 15, lines 51-66, and see fig. 7). Parce et al. teach that the inlet may be connected by any convenient means to a source of liquid for introduction into the reaction chamber while the outlet may be joined to any convenient waste receptacle (col. 15, lines 64-68.) It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide an inlet and outlet and to remove sample fluids through the outlet as taught by Parce et al. in the La Motte wells because Parce et al. teach the desirability of removing a sample from a reaction chamber and Parce et al. also teach the structural mechanisms to remove a sample from the reaction chamber. Moreover, one of ordinary skill in the art would have

reasonable expectation of success in providing an inlet and outlet to introduce and remove a sample from the La Motte reaction chamber (i.e., wells) given that La Motte also disclose that the wells of the wash station have an inlet and outlet and a means for pumping wash liquid separately through each recess (col. 2, lines 36-44). One of ordinary skill in the art would have reasonable expectation of success in providing an inlet and outlet in the La Motte chamber containing sample given the structures of the inlet and outlet and pumps are disclosed by La Motte as well as Parce et al.

Also, neither La Motte nor Parce et al. teach that an array of immobilized molecules of two or more second chemical species is deposited on distinct and known regions of the substrate. While both La Motte (col. 4, lines 1-2) and Parce et al. (col. 4, lines 63-68, and col. 22, lines 52-57) teach immobilizing molecules on a substrate and insertion into a reaction chamber, neither teach that the immobilized molecules are in an array and deposited on distinct and known regions of the substrate.

However, Rampal et al. teach that a plurality of the same or different biopolymers is attached to discrete, isolated areas of a substrate, such as a dipstick, to form an array (col. 3, lines 62-65 and col. 5, lines 61-62). Rampal et al. teach that a reporter such as fluorescent compounds may be immobilized on the array for detection (col. 3, lines 47-58). Rampal et al. teach that arrays, constructed by attaching a plurality of the same or different biopolymers to discrete isolated areas on the surface of a substrate are becoming increasingly important tools in analysis of unknown biopolymers, such as DNA sequencing, etc. (col. 1, lines 28-36).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a plurality of biopolymers in an array as taught by Rampal et al. in the La Motte solid substrate because Rampal et al. teach that biopolymers immobilized on a substrate in an array are useful and important in detection of unknown biopolymers. Moreover, one of ordinary skill in the art would recognize that a plurality of the same or different biopolymers probes provide for analysis of a plurality of the same or different unknown biopolymers, as would be desirable for convenience.

As to claim 2, the claimed first microfluidic device is considered the well plate at the capture station (see La Motte, col. 2, lines 21-22), and the claimed second microfluidic device is considered to be the well plate of one of the other stations (col. 2, lines 20-24, and lines 33-35), and the method further comprises insertion of the substrate into a channel in a second microfluidic device (see La Motte, see col. 2, lines 10-13). As to the step of introduction of a detection reagent into the channel in the second microfluidic device, wherein the molecules of the detection reagent come in contact with the molecules of another chemical species, although La Motte teaches nucleic acid analysis and sequencing (col. 1, lines 31-34 and col. 2, lines 23-24), La Motte does not explicitly disclose use of a labeling reagent. Parce et al. however also teach this limitation.

Parce et al. teach that binding of labeled binding member may be carried out on the substrate, i.e., strip, providing for a detectable signal (col. 4, lines 63-67) and that a wide variety of labels, including enzymes, are known in the literature which provide for

different signals (col. 6, lines 60-62). Parce et al. also disclose that a reagent may be added that has the label conjugated to the reciprocal binding member to the member bound to the substrate (col. 7, lines 19-26). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a labeling reagent as taught by Parce et al. in one of the La Motte processing stations with well plates because Parce teach that providing a label allows for detection of a binding member and that such labeling is well known in the art. Moreover, Rampal et al. also teach providing labels, such as enzymes or fluorescent compounds, for detection of unknown biopolymers, such as polynucleotides, and that the signal produced by the label immobilized on an array may be detected and recorded by a number of means (col. 3, lines 47-58, and col. 6, lines 63-65). Thus, Rampal et al. likewise teach the motivation to provide labels on nucleotides in the La Motte invention for its detection.

As to claims 11 and 15, as indicated above, Rampal et al. teach that the label may be a fluorescent label (col. 3, line 50).

As to claim 3, although La Motte explicitly discloses insertion of a first substrate into a channel of a first microfluidic device, introduction of a first sample into the channel in the first microfluidic device, removal of the first substrate from the first microfluidic device (see above regarding claim 1), La Motte does not explicitly disclose:

insertion of a second substrate into a channel of a second microfluidic device,

introduction of a second sample into the channel in the second microfluidic device,

removal of the second substrates from the second microfluidic devices;

insertion of the first substrate into a first channel of a third microfluidic device and a second substrate into a second channel in the third microfluidic device;

introduction of a detection reagent into the channels in the third microfluidic device, wherein the molecules of the detection reagent come in contact with the molecules of a first chemical species;

and detecting the presence of any molecules of the detection reagent bound to the molecules of the first chemical species of the second substrate.

However, Parce et al. teach that the assay device may be washed and prepared for the next test (col. 23, lines 15-17). Thus, Parce et al. specifically teach reusing the assay device. It would have been obvious to one of ordinary skill in the art at the time the invention was made to reuse the La Motte assay device as taught by Parce et al. because Parce et al. teach that a well may be washed and prepared for reuse in a next test. (In other words, La Motte does not explicitly teach reusing the assay device, but Parce et al. teach washing and reusing an assay device.) In reusing the wells, one of the teeth in the first test is considered the first substrate, and another teeth in the second test is considered the claimed second substrate. Because different stations are used in the La Motte device, the well plate in the capture station (42, see col. 2, line 22) is considered the claimed first microfluidic device and the well plate of the wash station (44, see col. 2, line 23) is considered the claimed second microfluidic device. The third microfluidic device is the wells of the sequencer (col. 4, lines 59-63) and the first and second channels of the third microfluidic device, as claimed by Applicant, are

considered to be the wells of the sequencer. Also detection is carried out (see col. 1, lines 31-34; and col. 4, lines 59-63).

As to the limitations regarding the step of introduction of a detection reagent into the channels in the third microfluidic device, wherein the molecules of the detection reagent come in contact with the molecules of a first chemical species (as recited in claim 3), although La Motte teaches nucleic acid analysis and sequencing (col. 1, lines 31-34 and col. 2, lines 23-24), La Motte only teaches use of the device in general and does not explicitly disclose use of a labeling reagent. Parce et al. however also teach this limitation.

Parce et al. teach that binding of labeled binding member may be carried out on the substrate, i.e., strip, providing for a detectable signal (col. 4, lines 63-67) and that a wide variety of labels are known in the literature which provide for different signals (col. 6, lines 60-62). Parce et al. also disclose that a reagent may be added that has the label conjugated to the reciprocal binding member to the member bound to the substrate (col. 7, lines 19-26). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a labeling reagent as taught by Parce et al. in one of the La Motte processing stations with well plates because Parce teach that providing a label allows for detection of a binding member and that such labeling is well known in the art.

As to claim 12, the channel in the microfluidic device contains at least two ports (i.e., one port being the opening of a well 21 as disclosed by La Motte, see col. 2, line 10; and the other port being an opening to the inlet as taught by Parce et al. as

discussed above, see Parce et al., col. 15, lines 51-68); and the substrate is inserted into the channel using a first port (see La Motte, col. 3, lines 60-62), and the sample is introduced into the channel using a second port (see Parce et al., col. 15, lines 64-68.)

As to claim 13, the channel of the microfluidic device of claim 1 contains at least three ports,

the sample is inserted into the channel using a first port (i.e., the opening of a well 21 as disclosed by La Motte, see col. 2, line 10);

the sample is introduced into the channel using a second port (i.e., an opening to the inlet as taught by Parce et al. as discussed above, see Parce et al., col. 15, lines 51-68);

and the sample is removed from the channel using a third port (i.e., an opening to the outlet as taught by Parce et al., col. 15, lines 62 and 67-68).

As to claim 14, La Motte disclose insertion of the substrate of claim 1 into a fourth microfluidic device (i.e., a well plate of one of the other stations, such as the washing station, see col. 2, lines 20-24).

As to claim 16, La Motte teaches a plurality of teeth (11) adapted to be received in the wells (21), (see La Motte, col. 1, lines 64-65). Each comb is considered a substrate and thus La Motte discloses multiple substrates. However, La Motte does not explicitly disclose that at least one chemical species present on one substrate is present on every other substrate. However, as indicated above regarding claim 1, Rampal et al. teach that a plurality of the same (type of) biopolymers is attached to discrete, isolated areas of a substrate, such as a dipstick, to form an array (col. 3, lines 62-65 and col. 5,

lines 61-62). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide each teeth in the La Motte invention with the same biopolymer (i.e., the same chemical species) because Rampal et al. teach the desirability of analyzing a sample using arrays of the same type of biopolymer. Moreover, one of ordinary skill in the art would be motivated to provide the same biopolymers on the different combs because La Motte also teaches the desirability of simultaneous handling and processing of a large number of samples, as would occur when the same type of biopolymers are attached to the teeth. A plurality of the same type of biopolymers on the teeth means that at least one second chemical species that is present on one substrate is present on every other substrate (as claimed by Applicant.)

As to claim 17, La Motte does not teach that at least one chemical species present on one substrate is not present on any other substrate. However, Rampal et al. teach that a plurality of different (types of) biopolymers may be immobilized on a substrate (col. 3, lines 62-65 and col. 5, lines 61-62). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide each teeth in the La Motte invention with different types of biopolymers as taught by Rampal et al. because Rampal et al. teach the desirability of analyzing a sample using arrays of different types of biopolymers. A plurality of different types of biopolymers on the teeth means that at least one chemical species present on one substrate is not present on any other substrate.

As to claim 18, La Motte does not teach that at least one type of second chemical species present on one substrate is present on every other substrate; and at least one chemical species present on one substrate is present on every other substrate, and at least one chemical species present on one substrate is not present on any other substrate. However, Rampal et al. teach that a plurality of the same or different types of biopolymers may be immobilized on a substrate ((col. 3, lines 62-65 and col. 5, lines 61-62). Rampal et al. teach that a reporter such as fluorescent compounds may be immobilized on the array for detection (col. 3, lines 47-58). Rampal et al. teach that arrays constructed by attaching a plurality of the same or different biopolymers to discrete isolated areas on the surface of a substrate are becoming increasingly important tools in analysis of unknown biopolymers, such as DNA sequencing, etc. (col. 1, lines 28-36). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a plurality of biopolymers with a mix of different types of biopolymers on the teeth of the La Motte substrate such that at least one type of second chemical species present on one substrate is present on every other substrate and at least one type of chemical species is not present on any other substrate because Rampal et al. teach the desirability of providing arrays of the same or different types of biopolymers immobilized to a substrate for subsequent detection of unknown biopolymers using labels. One of ordinary skill in the art would recognize the desirability of providing arrays of biopolymers that are different and/or the same, as would be desirable for various analyses.

As to claim 19, although La Motte teaches a metal plate designed for receiving the wells of a micro-titre plate and that the size of the metal plate is that of standard micro-titre format (col. 5, lines 2-7), (and thus,the wells and the teeth (11) which go into the wells must also be relatively small), La Motte howeer does not teach that a part of the substrate bearing the array of molecules is between one millimeter and ten centimeter long and has a cross-sectional dimension of between ten micrometer and ten millimeters. However, Rampal et al. teach that the size of solid supports, such as dipsticks, can vary and depends upon the final use of the immobilized biopolymers, and that those skilled in the art will appreciate that arrays of biopolymers immobilized on miniaturized solid supports have been under development for many years. Rampal et al. disclose that these solid supports can be measured in terms of mm squared planar surface area (col. 5, lines 53-61). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the La Motte solid support in the dimensions as claimed because Rampal et al. teach that one of ordinary skill in the art would recognize that the size of a solid support may vary depending on the intended use of the support and also that miniaturized solid supports have been under development for many years. Moreover, it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 15 USPQ 233. In this case, La Motte in view of Parce et al. and Rampal et al. disclose the invention substantially as claimed and the ranges in the size of the substrate as recited by Applicant regards

optimum or workable ranges and thus their discovery involves only routine skill in the art.

As to claim 20, the substrate is removed from the microfluidic device before detection of the molecules of first chemical species bound to molecules of the second chemical species (see La Motte, col. 4, lines 59-63).

As to claim 21, the molecules of the first chemical species are released from the substrate before detection (col. 4, line 63).

As to claim 22, as indicated above with respect to claim 2, Parce et al. teach that labels such as enzymes may be used (col. 6, lines 60-63), and Rampal et al. also teach the use of labels (col. 3, lines 47-58, and col. 6, lines 63-65). However, neither La Motte, Parce et al. nor Rampal et al. teach the step of removing the solution containing the catalyst from the channel, nor the step of introduction of a solution containing the catalyst and removing the solution containing the catalyst form the channel. However, Parce et al. teach a reaction chamber (116) having an inlet (110) and outlet (112) for introduction and removal of a sample (col. 15, lines 51-66, and see fig. 7). Parce et al. teach that the inlet may be connected by any convenient means to a source of liquid for introduction into the reaction chamber while the outlet may be joined to any convenient waste receptacle (col. 15, lines 64-68.) It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide an inlet and outlet and to remove labeling reagents in the La Motte wells because Parce et al. teach the desirability of removing a reaction material from a chamber and Parce et al. also teach the structural mechanisms to remove fluid from a reaction chamber. Moreover, one of

ordinary skill in the art would have reasonable expectation of success in providing an inlet and outlet to introduce and remove a labels from the La Motte wells given that La Motte also disclose that the wells of the wash station have an inlet and outlet and a means for pumping wash liquid separately through each recess (col. 2, lines 36-44). One of ordinary skill in the art would have reasonable expectation of success in providing an inlet and outlet in the other chambers in the La Motte invention given the structures of the inlet and outlet are disclosed by La Motte as well as Parce et al.

Response to Arguments

Applicant's arguments with respect to claims filed July 5, 2005 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ann Y. Lam whose telephone number is 571-272-0822. The examiner can normally be reached on Mon.-Fri. 10-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Long Le can be reached on 571-272-0823. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A.L.

LONG V. LE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1600
04/28/06